FIGURE 1

Gene domain of interest

Heat denature

RecA protein

DSGE DNA Probes

Domain A
Domain B
Domain C

1. IN VITRO TARGETING

Recombinogenic
Multi-stranded
DNA hybrids

4. REITERATE

2. TRANSFORMATION & IN VIVO RECOMBINATION IN CELLS

Domain A
Domain B
Domain C

3. SCREEN FOR RECOMBINANTS WITH DESIRED ACTIVITY

FIGURE 2

3' ●●●●●●●● 5' RecA-coated ssDNA Watson

+

3'   5'
5'   3' dsDNA Target

5'   5'
                      3' Three DNA strand
5'   containing hybrid

+

5' ●●●●●●●● 3' RecA-coated ssDNA Crick

5'   5'
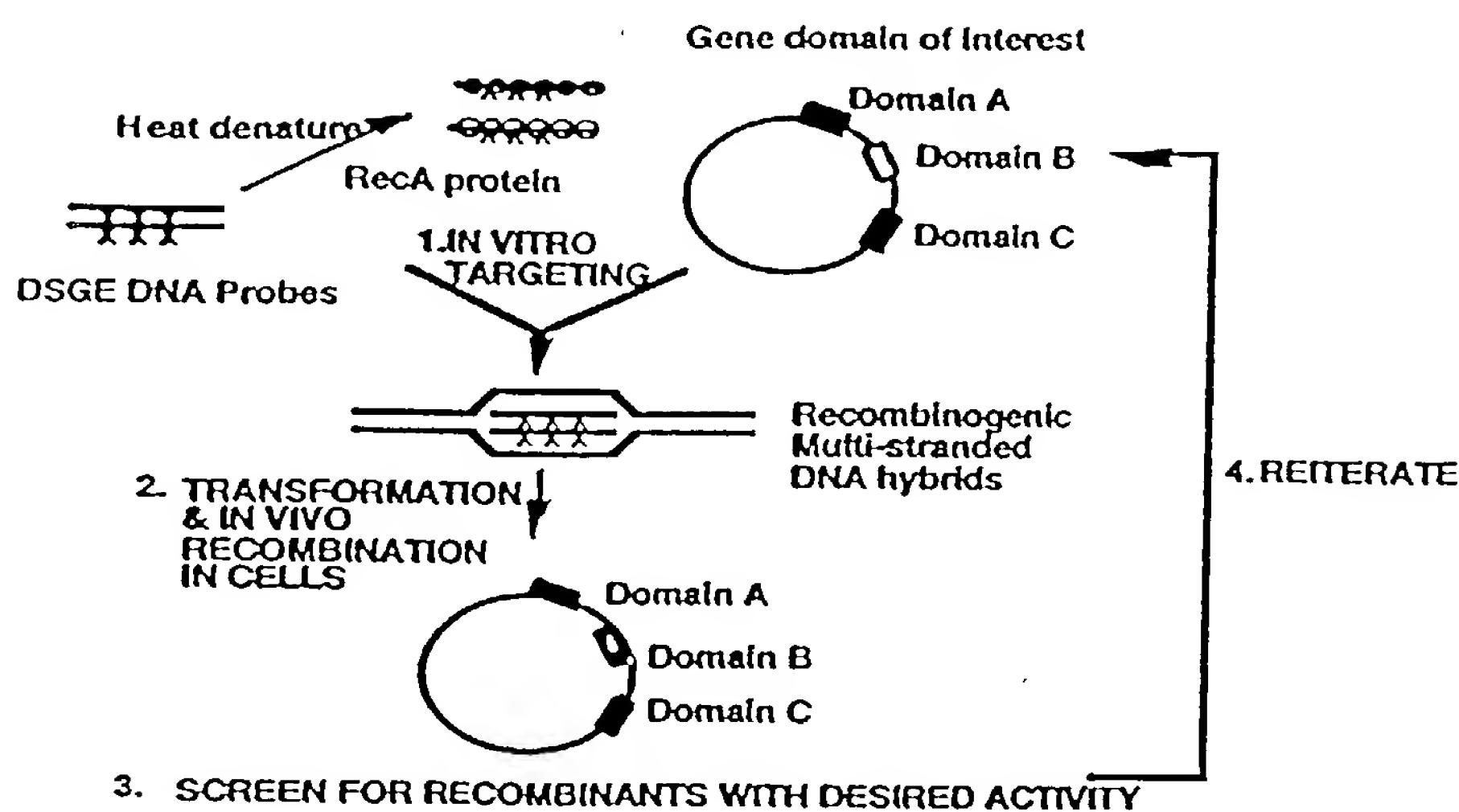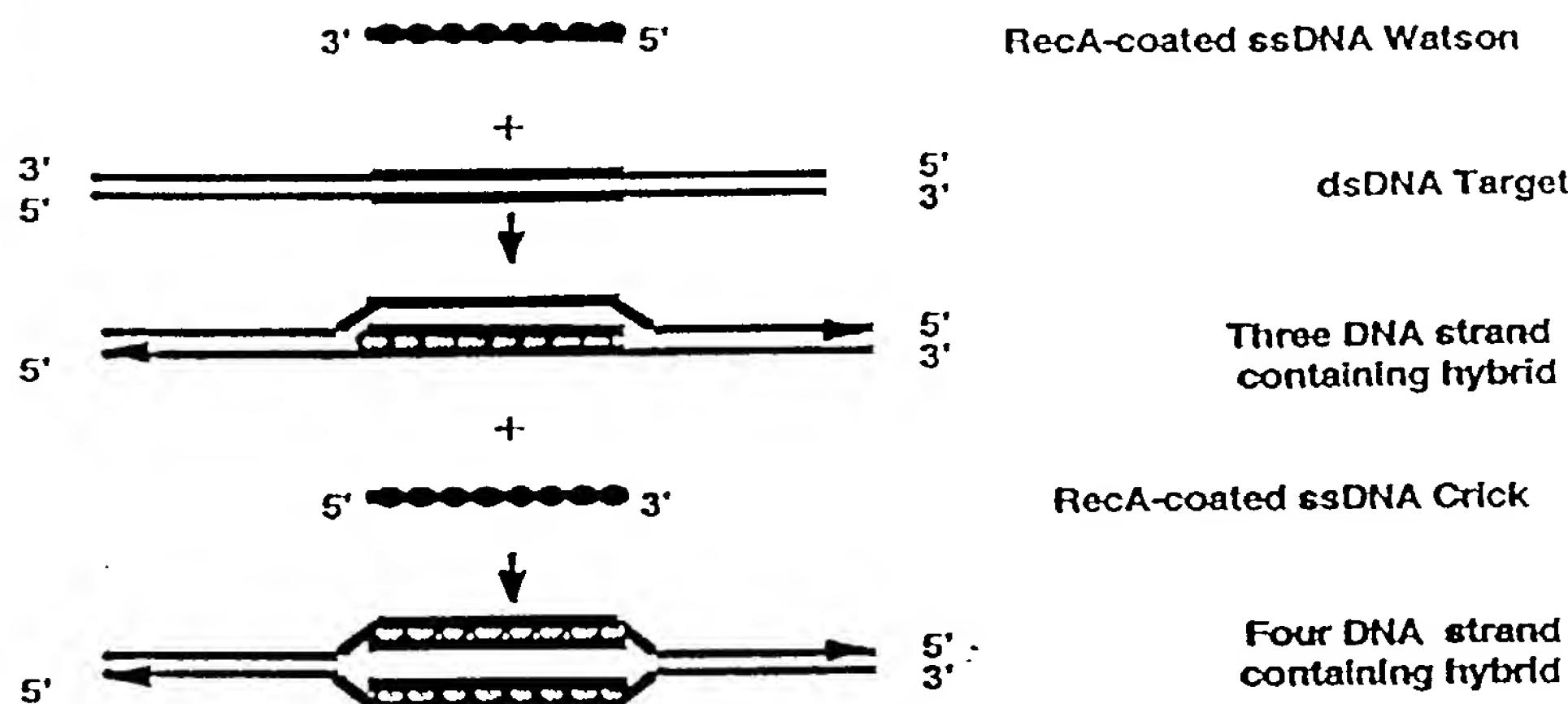   3' Four DNA strand
5'   containing hybrid

FIGURE 5

CDR H1 (SEQ ID NO:1):

Tcctgcaaggcttctggctactcctcaccxxxxxxxxxctgggtgaagcagaggcctggacaaggccttgagtg

CDR H2 (SEQ ID NO:2):

aggcctgacaaggccttgagtggattggcxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxaaggccacattg actgtagacagatcctccag

CDR H3 (SEQ ID NO:3):

gactctgcggtctattactgtgctagaggxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxtggggccaagggaccacggcaccgtctcc

CDR L1 (SEQ ID NO:4):

tctccaggggagaaggtcatcatgacctgcxxxxxxxxxxxxxxxxxxxxtactggtaccagcagaagccaggatcctccc

CDR L2 (SEQ ID NO:5):

ccaggatcctcccccagactcctgatttatxxxxxxxxxxxxxxxxxxxgtccctgttcgcttcagtggcagtgggtct

CDR L3 (SEQ ID NO:6):

ggaggctgaagatgctgccacttattactgcxxxxxxxxxxxxxxxxxxxxxxxggtgctgggacaaagctggagctcaaacgt

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